The Lupin Co.

# Inghten up your day with a little TLC.

Hailing from the same family as chickpeas and lentils, this tasty little legume is one the world's richest natural sources of combined protein (40%) and dietary fibre (37%). They also contain minerals,

including potassium, magnesium and iron, minus the gluten and carbs (only 4%).

While most high protein foods (from animals) can be full of fats, and high fibre foods come loaded with carbs, Lupin Flakes are extra special because they have higher nutritional benefits of other legumes and other healthy grains; plus are extremely low in energy (kJ) (only 1350kJ/100g compared to oats 1572kJ/100g, quinoa 1539/kJ/100g, and chickpeas 1619kJ/100q).

Legumes are becoming increasingly popular due to their excellent nutritional value along with their beneficial qualities for sustainable agriculture. However, while soybean and peanuts may be high in protein, they also come with the high fat content. Plus chickpeas, lentils and beans are moderately high in carbs.

Lupin Flakes are extra special because while they are extremely low in energy, they deliver double the protein of most legumes. Lupin Flakes contain 40g/100g protein compared to lentils 26g/100g, chickpeas 22g/100g and cannellini beans 22g/100g.

Lupin Flakes have a unique combination of low carb, gluten free plant-based protein and prebiotic fibres with high levels of bio available essential amino acids and minerals. This makes them ideal for improving health issues arising from today's modern diet, such as diabesity, hypertension, gut health and cardiovascular health.

One 40g serve (4 tablespoons) of TLC Lupin Flakes delivers 50% of your daily fibre intake plus other essential minerals including calcium, magnesium, potassium and iron. Lupin Flakes also have high levels of antioxidants, Lutein and Zeaxanthin which emerging research suggests is important for eye and brain health.

x more protein than quinoa\* x more dietary fibre than oats\* x more potassium than bananas\* x more iron than kale\*

# LUPINLICIOUSLY GOOD

TLC Lupin Flakes are made from 100% Aussie-grown lupins.

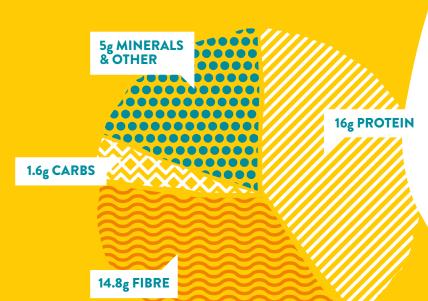
Unlike the colourful flowers that grow in your Granny's garden (don't eat those, they are bad for you!) Australian lupins have a delicious subtle flavour making them a healthy, tasty alternative to glutinous grains like wheat, rye and barley or high carb grains like rice and quinoa.

The best part is that Lupin Flakes are so easy to use. You can add a little TLC to absolutely anything. From crumbing, salads and breakfast cereals, to patties, burgers, smoothies and dips, as well as baked treats and cakes.



# Roll over quinoa!

With 40% protein, 37% dietary fibre, no gluten and only 4% carbohydrate (plus a whole stack of other goodness) TLC Lupin Flakes is the new super tasty, Aussie-grown powerfood that's packing a serious nutritional punch.



A recommended daily serving of Lupin Flakes is 40g (4 tbs)

\*Sources: Food Standards Australia: foodstandards.gov.au, NUTTAB database. Health Canada, CNF database. Quinoa; Protein (14g/100g), Carbohydrate (64g/100g). Oats; Dietary Fibre (10g/100g). Rice; Carbohydrate (80g/100g). Banana; Potassium (360mg/100g). Kale; Iron (1.5mg/100g).

# Lupinology 101

As part of the pioneering team that first launched Lupin Flakes into the Australian market, we're passionate about honest nutrition that makes a positive difference to the wellbeing of our customers, the environment and our local farming communities.

There
is substantial
clinical evidence that
suggests that an average
serve of 40g per day can
improve many health issues
such as diabetes, obesity,
blood pressure, bowel and
cardiovascular health.



#### HAVE YOUR MEAT AND EAT IT TOO!

Red meat has a lot of good nutrition. But clinical studies reveal high consumption of red meat can have negative impact on the bowel, including an increased risk of bowel cancer. Bowel cancer is Australia's second biggest cancer killer and affects 15,000 Australians each year.

Recently, the World Health Organisation decreased the safe amount of red meat from 500 grams to 300 grams per week. The main reason why red meat consumption is linked to bowel cancer is due to the slow transit time through the intestinal tract and digestive residues which cause irritation in the bowel. Barbequing red meat exacerbates this problem by forming toxic compounds upon cooking.

Adding resistant starch or certain fibres found in lupins, beans, legumes, cold potato, banana, whole grains and seeds to red meat will shorten the contact time of the digestive residues therefore reducing inflammation and cancer risk.

When adding Lupin Flakes you don't dilute or lose any protein (because lupin brings its own protein) but you get the additional benefit of the dietary fibre, that keep the large intestines "safe" from the issues that red meat can cause.

Plus Lupin Flakes retain their nutritional health benefits even when heated in cooking which means it can be added to nuggets, meatballs or patties; used to crumb meat; be mixed into casseroles to thicken sauces or served as a low-carb gluten free side dish as a replacement to rice, quinoa, pasta or cous cous.



#### **GOOD FOR YOUR GUT**

The key to a healthy body and a healthy gut is prebiotics: the food that probiotics eat. Lupin Flakes are packed with prebiotic fibres which helps reduce the risk of colon cancer, create better insulin response and so much more. With 37g/100g that's more than three times the goodness of lentils 13g/100g or oats 10g/100g.

#### MANAGING BLOOD SUGARS

Diabesity (diabetes in the context of obesity) is a serious thing and the leading cause of chronic disease in the 21st century. Low carb foods like Lupin Flakes are great for glucose management, which can help to prevent nasties like diabesity, heart disease and high blood pressure.

#### **REDUCES HYPERTENSION**

Lupin Flakes are one of the highest natural sources of the amino acid arginine which has been proven to have beneficial effects on endothelial function (improved blood vessel performance). However more recently, lupin fibre has also demonstrated beneficial effects on blood pressure, helping to reduce the impact of heart disease.

#### **GOOD FOR TEETH & TIREDNESS**

Lupin Flakes are a good source of magnesium which is necessary for teeth and bone structure and also contributes to reduced tiredness and fatigue. Lupin Flakes are a good source of potassium which aids in the normal functioning of the nervous system and muscles.

# REDUCE THE GLYCEMIC LOAD OF CARBOHYDRATE FOODS

Lupin Flakes are low GI with only 4g/100g of digestible carbohydrates (much like an egg). Lupin Flakes have the lowest GI of any commonly consumed grains or legumes and when included into baked products, (e.g. swapping out flour and adding Lupin Flakes into a muffin mix, will lower the carbohydrate count).

In a short term study it was found that adding lupin to a sugary drink reduced the expected sugar spike. Further, a long term study found that a lupin enriched diet improved glucose metabolism.

# INCREASE SATIETY AND LOWER ENERGY INTAKE

Because Lupin Flakes are high in protein as well as fibre, they can help you to feel fuller for longer. Clinical studies have shown that adding lupin to a meal increases satiety (the feeling of fullness) and lowers the body's total energy intake throughout the day.

# MEATY NEW STUDY: PLANT PROTEIN EATERS LIVE LONGER†

The importance of protein for muscle-building and cell function has been known for more than 200 years. With the quest for the ideal weight-loss-diet driving the popularity of a high-protein/low carbohydrate lifestyle, Lupin Flakes lead the charge in plant based protein foods, providing more protein than a piece of porterhouse steak and less than 4% carbohydrate.

Full clinical study references available upon request

# Super boost your breakfast granola!

Oats VS Lupin Flakes

Energy (kJ)	1,572	1,350
Protein (g)	11	40
Fat (g)	8.7	6.4
Dietary fibre (g)	9.5	37
Carbohydrate (g)	58.1	4

#### **COMPARISON VALUES BASED ON 100G SERVE**

Replacing 100g of oats with 100g of Lupin Flakes, adds 260% more protein, 290% more fibre,



Cinnamon, lupin & coconut granola



# Light lupin cous cous!

Cous cous VS Boiled Lupin Flakes

Energy (kJ)	663	371.9
Protein (g)	5.2	11
Fat (g)	0.3	1.8
Dietary fibre (g)	2.2	10.2
Carbohydrate (g)	32.2	1.1

#### **COMPARISON VALUES BASED ON 100G SERVE**

Replacing 100g of cous cous with 100g of cooked Lupin Flakes, 44% less energy (kJ), to your salads.

# SOIHING BEATS LUPIN

# Breadcrumbs **VS** Lupin Flakes

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Energy (kJ)	1,499	1,350
Protein (g)	12.5	40
Fat (g)	3.6	6.4
Dietary fibre (g)	4.1	37
Carbohydrate (g)	66.2	4

#### **COMPARISON VALUES BASED ON 100G SERVE**

Replacing 100g of breadcrumbs with 100g of Lupin Flakes, adds 220% more protein, 802% more fibre, 94% less carbs and 10% less energy (kJ), to your crumbed fish or chicken schnitzel.





# Cooked rice VS lupin rice mix

Energy (kJ)	671	412
Protein (g)	2.7	4
Fat (g)	0.1	0.5
Dietary fibre (g)	1	3
Carbohydrate (g)	36	18

#### **COMPARISON VALUES BASED ON 100G SERVE**

Replacing 100g of cooked rice with 100g of cooked lupin rice mix, adds 50% more protein, 162% more fibre, 50% less carbs and 39% less energy (kJ), to your stirfry.



crumbed chicken

# Changing the world one flake at a time.

With a heritage in the Aussie lupins industry spanning more than 20 years, we'd like to think we know a thing or two about making the best lupin' flakes in the world. We take a serious approach to health and nutrition and believe that everyone deserves a little TLC!



As a small Aussie company we're passionate about seriously good food that tastes great and makes the world a healthier place. Not only are TLC Lupin Flakes good for you they are good for the earth and the Aussie growers that we support.

Lupins have been grown in Australia since the 1960's as a natural fertiliser for soil health, however it's only recently that we've recognized how good they are for our health.

In the late 90's the Australian research community took an interest in lupins unique nutrient profile and began a series of studies over the next 20 years that confirmed an astounding array of proven health and environmental benefits that could significantly transform the wellbeing of Australia. It was simply a matter of working out how to put lupins into the pantry and onto menus around the world which is where we come in.

For over two decades we have personally been involved in growing, marketing, researching and working with Australian Lupin Flakes — you could say we're experts at Lupinology 101!

# DID YOU KNOW

Lupin's rich golden colour can be attributed to its high antioxidant content, specifically Lutein and Zeaxanthin. Lutein and Zeaxanthin are important for eye health and more recently have been linked to preventing dementia.

#### **GOOD FOR THE ENVIRONMENT**

We all agree that the 'sustainable' word gets thrown around a bit but Lupin Flakes are seriously good for the environment. Like chickpeas and peanuts, as a legume, lupins act as a natural fertiliser introducing nitrogen back into the soil, therefore reducing the need for chemical fertilisers.

#### **GOOD FOR AUSSIE GROWERS**

Our lupins are sourced from Western Australian growers who are an integral part of our supply chain, of which we have full traceability. When you purchase TLC Lupin Flakes you are supporting our Aussie growers and promoting sustainable agricultural practices.

#### **GOOD FOR CHARITIES WE SUPPORT**

We believe everyone deserves a little TLC which is why we love working with community initiatives like 5,000 Meals, a project that involves students preparing and providing nourishing meals for the homeless and people in need.

5,000 Meals works with Foodbank WA, Food Rescue, Oz Harvest, local producers, local chefs and WA High Schools, to foster a cycle of giving. Lupin Flakes are so versatile and easy to make, making them the ideal ingredient. All produce is donated and the program provides valuable vocational experience for students.

#### **GOOD FOR OUR ECONOMY**

85% of the world's lupins are grown right here in Australia. Which means the more we get Lupin Flakes onto the menu, the more our farmers, economy and environment will benefit!

#### **NOT ALL FLAKES ARE EQUAL!**

Just ask anyone who's tried to make a creamy porridge from poor quality cheap rolled oats (clag glue anyone?).

Our TLC Lupin Flakes are non GM and made with TLC from 100% sustainably grown, Aussie lupins that have been minimally processed by us right here in Australia.

Our special Flaking Technology has been specifically designed to create the perfect flake every time.





# Lupinliciously easy!

Lupin Flakes are so easy to use, delicious to eat and can be added to just about any dish you can think of. They're a bit like cous cous or quinoa (minus the gluten and carbs) with an extra protein hit. Whether you're a sprinkler, roaster, baker or blender just follow these simple steps to add a little TLC to your day!



Add 1 part Lupin Flakes to 3 parts hot water and bring to boil. Boil for 3 mins then strain. Let cool before squeezing out excess moisture.

Cooked Lupin Flakes can be served as a meal accompaniment (replacing rice, cous cous or quinoa) or try cooling and tossing through a salad for an extra protein hit!

#### Let's get toasty!

Toasted Lupin Flakes have a delicious rich nutty flavour making them perfect for sprinkling over breakfast, smoothies or mixing into baked goodies and treats.

We like toasting them with a little coconut oil for a crunchy muesli topper or mixing them into protein balls.

Add 1 cup to a hot dry pan and stir over medium heat for 3-4 mins until golden, or roast on a tray at 150°C.





### Absorption method

For an extra protein fix, add 1 cup rice, ½ cup Lupin Flakes and 3 cups of water in a rice cooker with ¼ tsp salt.

For an aromatic twist try adding a cinnamon quill, 1 tsp of turmeric, 1 tsp ground coriander, ¼ tsp cumin powder, plus a squeeze of fresh lemon, a sprinkle of toasted almonds and fresh chopped parsley.



# The perfect gluten-free crumb!

Lupin Flakes are perfect for crumbing meat, poultry, fish and veggies. Simply dust the main ingredient in rice flour and dip in egg before covering in Lupin Flakes flavoured with fresh herbs or spices. Allow them to rest for 15 mins before lightly pan frying.



- 3. Transfer the mix to a baking tray lined with baking paper.
- 4. Roast, tossing occasionally, until golden brown, 15-20 minutes.

To find more recipes go to thelupinco.com.au

# Sharing the lupin love!

Don't just take our word for it. These are just a few of the testimonials we've received from some of our favourite dietitians, chefs and health professionals.



Like other legumes it's high in protein, but it has a very low amount of carbohydrate and an extremely high level of fibre. 100g of lupin provides about 40g of protein, only 4g of carbohydrate, 6g of fat and a whopping 37g of fibre!

This makes it a pretty amazing food to add to a recipe to reduce the glycaemic load, while boosting the fibre and protein!

It can therefore be of benefit in controlling blood glucose levels, reducing blood cholesterol levels and boosting gut health.

You can use Lupin Flakes to crumb chicken or fish (fabulous for a healthy schnitzel) or to make falafel. Make dips, protein balls, patties and even pancakes with it, or add cooked Lupin Flakes to salads.



We love using TLC Lupin Flakes at both our restaurants and have made some really interesting dishes with it, including muesli and bread. We've also been able to easily adapt previous recipes to include the Lupin Flakes as a way of increasing the protein and health benefits of some of our dishes.

I'm excited to partner with The Lupin Co. to help develop Lupin Flakes into a household product. It's not very often that a chef gets presented with a new product that is healthy, gluten free and versatile.

For me, it's a great opportunity to get to meet the people that actually farm the lupins and I am really looking forward to developing some delicious, healthy products for everyone to enjoy.



Lupin is an ancient legume, highly regarded by the early Egyptians and Romans and mainly consumed throughout the Mediterranean. Lupins are particularly high in magnesium and calcium, minerals that are commonly deficient in the modern day diet.

Lupin Flakes is a versatile ingredient and a good substitute in gluten free cooking or for those looking to increase prebiotic fibre, antioxidants and protein into their diet.

Lupin is predicted to be a nutrient rich new superfood set to take the health industry by

Lupin is We have been raving exceptionally about lupin lately! high in protein (40g/100g) and fibre (37g/100g) which makes it a good addition to your baked goods, smoothies, breakfast or salads.





It's been a while since we've seen the emergence of a new health food, but now we have 'lupin'. Here's the lowdown on why this newbie is one worth trying. There are 12 lupin species, one being the tastier, narrow-leafed Sweet Lupin (Lupinus angustofolius), cultivated in Western Australia. Australia is actually the largest lupin producer worldwide – we produce one million tonnes annually! The Lupin Co. says it is considered an emerging 'Superfood' product in the

The impressive nutritional profile of this legume is beginning to gain more attention, particularly in the health food world!

Australian food industry. But perhaps for not much longer!

# **FAQS**

# Are TLC Lupin Flakes suitable for vegetarians, vegans and other plant-based dietary lifestyles?

Yes. TLC Lupin Flakes are made from 100% raw Australian lupins that have been uniquely flaked with no heating involved. As one of the world's richest sources of combined protein (40%) and dietary fibre (37%), Lupin Flakes are the perfect plant-based alternative to animal products.

# Are Lupin Flakes safe for people with gluten and dairy intolerances?

Yes. TLC Lupin Flakes contain absolutely no gluten or dairy making them ideal for people with coeliac disease, lactose intolerances and other gluten related dietary issues.

#### Are Lupin Flakes suitable for diabetics?

Yes. Diabesity (diabetes in the context of obesity) is a serious thing and the leading cause of chronic disease in the 21st century. Low carb foods like Lupin Flakes are great for glucose management, which can help to prevent nasties like diabesity, heart disease and high blood pressure.

#### Where do you get your lupins from?

All our lupins are sustainably grown by local farmers in Western Australia and processed right here in Australia.

#### What is the allergen status of lupin?

Lupin, like other protein containing foods (e.g. peanut, soybean) may trigger an allergic reaction in a small percentage of the population. Some people who are allergic to peanuts may also react to lupin. If you know or think you are allergic to lupin, it is important that you visit your doctor and ask for a referral to a clinical immunology/allergy specialist.

 $Source: Australasian \ Society \ of \ Clinical \ Immunology \\ and \ Allergy$ 

#### How much fibre should I eat each day?

The National Health and Medical Research Council recommend that women and men consume at least 25g and 30g of fibre per day, respectively. A standard 40g serve (or 4 tablespoons) of TLC Lupin Flakes provides 14.8g of fibre and 16g of protein.

# What are the health benefits of eating a diet high in fibre?

Dietary fibre offers many health benefits, including potentially reducing the risk of coronary heart disease, stroke, hypertension, diabetes, obesity and certain gastrointestinal disorders. Adequate intakes of dietary fibre may also improve blood lipid profiles, reduce blood pressure, improve glycaemic control, improve laxation, promote weight loss and improve immune function.

#### What is a prebiotic fibre?

A prebiotic is a type of fibre. To be classified as a prebiotic, the fibre must pass through the digestive system undigested and stimulate the growth and/or activity of certain 'good' bacteria in the large intestine. Prebiotic fibres include fructans and galacto-oligosaccharides (GOS).

#### What is dietary fibre?

Dietary fibres are undigestible carbohydrates that are passed through to the large intestine providing our healthy gut flora with the food they need to flourish.

Not all fibres are created equal and they perform

Not all fibres are created equal and they perform different roles in the gut. Soluble fibres slow down digestion and are good for cholesterol lowering, insoluble fibres are great for regularity and prebiotic fibres are very beneficial for stimulating the growth of friendly bacteria.

Lupin fibre is unique in that it acts as soluble, insoluble and prebiotic fibre.

# How can I maintain a healthy balance of good bacteria in my gut?

One way of increasing the number of good bacteria in the gut is by eating foods that are high in dietary fibre and especially prebiotic fibres. Lupin Flakes have a whopping 37g of fibre per 100g, with close to 1/3 of this fibre acting as a prebiotic fibre. Clinical studies have shown that lupin fibre is exceptional at stimulating the growth of friendly bacteria.

# How do I reduce flatulence or 'wind' on a high fibre diet including legumes and pulses?

Some foods such as legumes produce excessive wind. The wind is the result of excessive gas produced through the action of the gut microflora. This often happens when people change from a low fibre diet to include very high fibre foods such as legumes. We recommend you introduce these high fibre foods very gradually over 14 days. This will give your gut and gut bacteria time to adapt to the greater quantity of fibre arriving in the large bowel.

# What are the health benefits of eating a diet high in dietary fibre and especially prebiotic fibres?

Some health benefits attributed to prebiotic fibre intake include stimulation of gut flora, improved mineral absorption, possible protection against colon cancer, stabilisation of blood glucose and insulin levels, protection against intestinal infections and alterations in the progress of some inflammatory conditions.

# I have medically diagnosed irritable bowel syndrome (IBS) and have been advised to avoid eating many high prebiotic foods. Are TLC Lupin Flakes right for me?

If you have received a diagnosis of IBS from your doctor, you may have been placed on the 'Monash University low FODMAP diet'. The low FODMAP diet is a special therapeutic diet designed to alleviate the undesirable gastrointestinal symptoms associated with this condition. You must seek the guidance of a qualified dietitian with experience in this area before incorporating any new foods, including Lupin Flakes, into your diet.



Australian lupin has been recognised and recommended as a health food option by a growing number of health professionals. We can provide clinical studies and testimonials from leading naturopaths, health practitioners, sports professionals, chefs, farmers and everyday Australians who are advocates of TLC Lupin Flakes.

See you on the bright side!

A Level 1, Suite 6, 1 - 5 Point Street, Fremantle WA 6160 E hello@thelupinco.com.au P 08 6263 1140 ☑ ¶ ▷ P

thelupinco.com.au